Sidong Feng

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Education

- **Australian National University** — Canberra, AU
  Bachelor of Software Engineering (Honors) — *Feb. 2016 – Dec. 2019*
- **Blue Mountains Grammar School** — NSW, AU
  High School top 1% — *Jul. 2013 – Nov. 2015*

Projects

- **Exam Master on Students' Wrong Questions**
  Prof Yin Xu (National University of Singapore) — *Apr 2020 - Present*
  - **Text Detection**: Recognize text and position as the basis of index segmentation and topic classification.
  - **Error Detection**: Propose object detection model to identify and locate the correction of the wrong question.
  - **Hand Written Removal**: Support student to further redo the exam and improve review efficiency.
- **Stack Overflow Anchor Text Recommendation**
  Dr Zhenchang Xing (Australian National University), Dr Chunyang Chen (Monash University) — *Oct 2019 - Current*
  - **Data analysis**: Explore potential beneficial effects on anchor text changes in collaborative editing.
  - **Deep Learning**: Purpose BERT model trained with custom dataset to automatically extract and classify anchor.
- **UI Design Gallery, Tagging-based Search, Design Composition Critique**
  Dr Zhenchang Xing (Australian National University), Dr Chunyang Chen (Monash University) — *Nov 2018 - Nov 2019*
  - **Auto-created GUI Component Gallery**: Support design sharing and knowledge discovery beyond content
  - **Discovering UI Semantic and Predicting Tag**: Recommend and recover the pre-described tags for UI design
  - **Debugging GUI Design**: Help determine the visual aesthetics of design and suggest potential revision
  - **Deep Learning**: Propose FRCNN for auto-creation, Hybrid model for prediction, DCGAN for design aesthetics.
- **Dynamic Facial Stress Recognition in Temporal Convolutional Network**
  Professor Tom Gedeon (Australian National University) — *Feb 2019 - Jul 2019*
  - **Deep Learning**: Convolutional based model to automatically recognize temporal dynamic facial stress problem.
  - **Outlier Removal**: Feasibility of Bimodal Distribution Removal on added artificial outlier and real world noise.
  - **Previous Work Analysis**: Fundamental limitations of static processing characteristics of stress recognition.
- **Implementing Mathematical Functions in a Unum Library**
  Dr Josh Milthorpe (Australian National University) — *Feb 2018 - Jun 2018*
  - **Mathematical Implementation**: Feasibility of mathematical inductions on Log, Exp and Power in Unum.
  - **High Performance Analysis**: Estimating Accuracy, Time and Precision to analyse function efficiency.

Experience

- **NUS (Suzhou) Research Institute** — Jiangsu, CN
  Research Assistant Intern — *Apr 2020 - Present*
- **Leju (Suzhou)** — Jiangsu, CN
  UI Developer Intern — *Nov 2018 - Feb 2019*
  - **Interface Design**: Designed the product application, guidelines and UI specification.
  - **Human-Computer Interaction**: Repeatedly elicited users' feedback about experiences with prototyped design.
  - **Bug Testing**: Profiled, troubleshot and fixed bugs for the high-volume internal web application.
  - **System Improvement**: Improved code readability and performance by reviewing the quality of code.
- **Civilise.ai** — Canberra, AU
  Software Developer Intern — *Jul 2018 - Nov 2018*

- **Data Preprocessing**: Developed CV modules to detect regions of change in satellite images at different time.
- **Deep Learning**: Built a convolutional neural network to classify regions of change, and achieves 92% accuracy.
- **Data Visualization**: Performed GIS operations on heatmap to cluster high concentration of property revolution.
- **Software Documentation**: Constructed concise burndown chart, user story map, risk register and decision log.

• **OK RDY** Canberra, AU
Software Developer Intern *Feb 2018 - Jul 2018*

- **Mobile Application**: Designed interface and implemented functionalities (malicious reporting, message system)
- **Bugs Testing**: Applied Jira for bug tracking, led team to fix bugs through unit test in mentor-matching app.

• **China Life (Suzhou)** Jiangsu, CN
Software Developer Intern *Nov 2017 - Feb 2018*

- **Software Management**: Responsible for debugging and repairing coding issues for application.
- **Cross-browser Compatibility**: Re-factored functionalities and CSS for websites to ensure compatibility.

• **Building and Construction Council (Suzhou)** Jiangsu, CN
Civil Analyst Intern *Nov 2016 - Feb 2017*

- **Building Coordination**: Assisted miscellaneous projects as assigned to insure a successful boutique opening.
- **Progress Report**: Provided status reports to senior management to keep them apprised of progress.

Publications

- One double-blind paper is *In the process of submitting to ACM Conference on Computer Supported Cooperative Work and Social Computing.* [**CSCW 2020 under review**].
- Two papers are *In the process of submitting to Foundations of Software Engineering.* [**FSE Demos 2020 under review**].
- **S. Feng**. "Dynamic Facial Stress Recognition in Temporal Convolutional Network", Proceedings of the Springer on Neural Information Processing, vol 1142, ICONIP, December 2019, pp. 698-706 [**ICONIP 2019**]. This paper is also published in ANU Bio-inspired Computing conference [**ABCs 2019**].
- C. Chen, **S. Feng**, Z. Xing, L. Liu, S. Zhao, J. Wang. "Gallery D.C.: Design Search and Knowledge Discovery through Auto-created GUI Component Gallery", Proceedings of the ACM on Human-Computer Interaction, Volume. 3, No. CSCW, November 2019, pp. 180:1-180:22 [**CSCW 2019**].

Awards

- High Distinction in Algorithms, Mathematics, Database Analysis, Software Computing, etc. [at ANU]
- Top 5 Award in Innovation ACT 2018 (with $8,750 grant). [in Civilise.ai]
- Reached a primary intent of cooperation with the Queanbeyan council, NSW, Australia. [in Civilise.ai]
- 'Start-up of the Year' award in the Digital Canberra iAwards 2018. [in OK RDY]
- Top student in Mathematic Extension 1&2, English as Second Language and Information processes and technology [at BMGS].
- Top 20% in Australian Mathematics Competition.

Programming Skills

- **Languages**: Python, Java, Javascript, SQL, HTML, C, Haskell **Technologies**: Sketch, Photoshop, ArcGIS

Personal

- Paper Art Design, Certified Skydiver, SSI Water Diver, Amateur Go rank 2 dan